INSTITUTE OF POLICY STUDIES

INFLATION IN SRI LANKA IN 1990

By
H. Nicholas and R. A. Yatawara

Working Paper No. 2

D.F.C.C. Building - 2nd Floor
73/5, Galle Road
Colombo 3
Sri Lanka

October 1991

INSTITUTE OF POLICY STUDIES

INFLATION IN SRI LANKA IN 1990

H. Nicholas and R. A. Yatawara

CONTENTS

1. INTRODUCTION.....1

2. INFLATIONARY PRESSURES.....3

2.1 COST-PUSH FACTORS.....3

2.2 DEMAND-PULL FACTORS.....7

3. IMPLICATIONS FOR POLICY.....10

4. INFLATIONARY OUTLOOK.....12

REFERENCES.....14

INFLATION IN SRI LANKA IN 1990

By

H. Nicholas and R. A. Yatawara

1. INTRODUCTION

The indicators of inflation widely used in Sri Lanka are threefold : the Colombo Consumers' Price Index (CCPI), the Wholesale Price Index (WPI), and the implicit GDP Deflator (GDPD). The CCPI is best described as a retail price index. Its coverage is restricted to a number of household consumption items based on, and weighted by, expenditure patterns of the Colombo city working classes in 1951. The commodity coverage of the WPI is broader, giving greater weight to internationally traded commodities. It is generally described as a cost of production index. Commodity coverage of the GDPD is wider still. It includes all goods and services of domestic origin weighted by their respective contributions to total value added. The latter is arguably the best indicator of general inflationary forces operating in the economy, from whatever source they may emerge. However, unlike the CCPI and the WPI it does not directly reflect changes in import prices. A disadvantage with the GDP is the lag in its compilation.[1]

Plotting data for the CCPI and GDPD over the post-1978 period shows that they have moved, and are increasingly moving closer together, to the extent that the CCPI can now be used as a reasonably accurate approximation of the GDPD. It is also worth noting that the rate of growth of the CCPI tends to rise and fall marginally more rapidly than that of the GDPD. The WPI moves in the same direction as the other two indicators, but it is more volatile, rising and falling more rapidly. This is hardly surprising since, as we have noted, the WPI is essentially a cost of production indicator, and the other two indices reflect final selling prices. Selling prices are typically less volatile than costs of production, particularly when supplies are constrained.

Differences between these indicators notwithstanding, there is an unusual degree of agreement between them regarding the outturn for 1990. The CCPI registered an increase of 21.5%, the GDPD 19.8%, and the WPI 22.2%. Differences between the indices accord with expectations concerning relative rates of change. When prices are rising (or falling) rapidly, the CCPI tends to rise (or fall) more rapidly than the GDPD and the WPI tends to rise (or fall) more rapidly than both the CCPI and

---

1. The Department of Census and Statistics has recently introduced a new price index; the Greater Colombo Consumers' Price Index (GCPI). This index is, like the CCPI, a retail price index. In fact the GCPI is explicitly intended to compensate for some of the well-known deficiencies of the CCPI (see Nicholas 1988:4-5). Thus, the GCPI has a wider population and commodity coverage than the CCPI, and the base year is more recent. Specifically, the GCPI is based on the expenditure patterns of the lowest four deciles of the population in 1985/6 - revalued at January-June 1989 prices. The most notable difference between the two indices is the greater weight accorded food, especially rice, and the lower weight accorded clothing and footwear in the GCPI.

the GDPD. In the case of all three indicators the increase in 1990 was roughly double that of the preceding year (see Table 1.1). The rate of increase in the CCPI was the highest since 1980.

Figure 1.1: Trends on the Three Indices, 1978-90 (% changes)

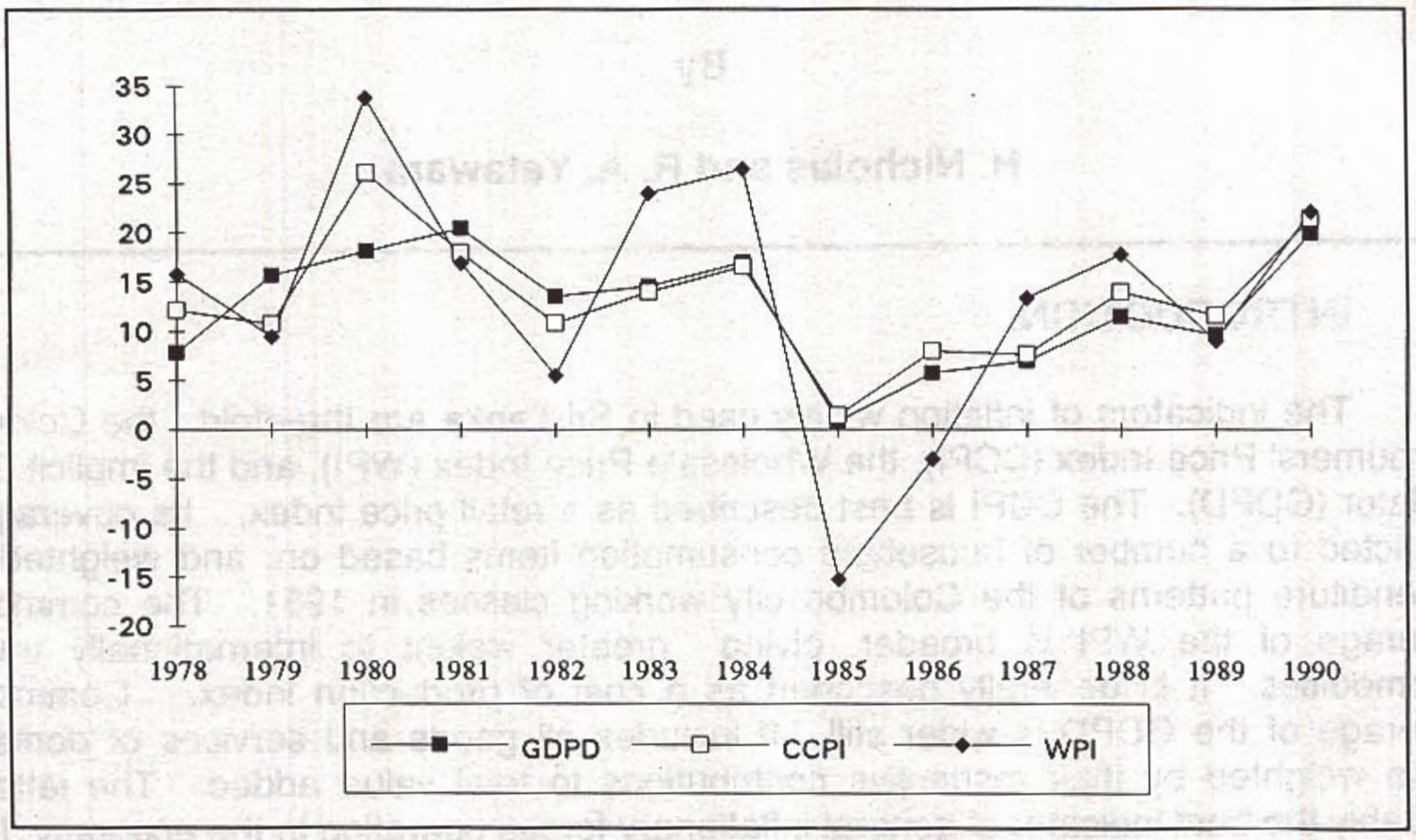


Table 1.1: The CCPI, WPI and GDPD, 1978-90 (% changes)

YEAR	Percentage Change		
	CCPI	GDPD	WPI
1978	12.1	8.3	15.8
1979	10.8	15.5	9.5
1980	26.1	20.1	33.7
1981	18.0	20.8	17.0
1982	10.8	11.1	5.5
1983	14.0	16.8	25.0
1984	16.6	20.4	25.6
1985	1.5	0.6	-15.2
1986	8.0	6.0	-2.9
1987	7.7	8.0	13.4
1988	14.0	10.4	17.8
1989	11.6	11.4	9.0
1990	21.5	19.8	22.2

CCPI: Colombo Consumers' Price Index
GDPD: Gross Domestic Product Deflator
WPI: Wholesale Price Index
Source: Central Bank of Sri Lanka.

Figures given in Table 1.2 show that the Sri Lankan rate of inflation in 1990 not only exceeded the average for industrialised countries, but also that for many of her closest competitors. The rate of inflation prevailing in the NICs in 1990 was 7.9%, in the Asian bloc excluding Japan and Vietnam it was 11%,[2] and in the Indian sub-continent it was 11.2%. These differences give cause for concern, particularly so in the absence of any compensating currency devaluation to maintain parities.

Table 1.2: Sri Lankan and World Rates of Inflation 1990 - retail prices (percentage change)

Sri Lanka	21.5
Industrialised Countries	5.6
Asian Countries (excluding Japan and Vietnam)	14.0
Asian Countries (excluding Japan)	11.0
Newly Industrialising Countries (NICs)	7.9
South Asian Countries*	11.2

* South Asian Countries include: India, Pakistan, Bangladesh, Nepal, Bhutan, and Sri Lanka
Sources: Central Bank of Sri Lanka, Economist, and Asia Week

2. INFLATIONARY PRESSURES

2.1 COST-PUSH FACTORS

The proximate causes of this upsurge in the rate of inflation in 1990 are primarily supply side: the sharp rise in import (and export) prices, partly resulting from the depreciation of the Rupee in late 1989, and the adjustment and liberalisation of certain key administered prices - largely in response to the increase in import prices. Table 1.3 shows a number of the important import and administered price changes that are likely to have contributed to the escalating inflation in 1990. Particular attention should be paid to increases in Consumer Goods (45.5%), Petroleum (64.1%), and Fertiliser (64.8%) import prices, and in flour (60.3%) and fertiliser (132.9%) administered prices.

Recent studies by the Institute of Policy Studies, Colombo, and the International Monetary Fund highlight the fact that most inflationary pressure in the post-1978 period can be attributed to these two factors, especially external price hikes, regardless of the indicator of inflation that is chosen. A distinction, however, should be drawn between the CCPI (and GDPD) and the WPI. Changes in the CCPI (and GDPD) over most of the post-1978 period appear to be explained largely by corresponding changes in import and administrative (and fiscally induced) prices, whereas changes in the WPI are attributable to import and export price changes. An obvious reason for the difference is, again, the nature of the two indices; one being a retail price and the other a cost of production index. Another reason lies in the respective weights that are accorded to external prices in them. In the CCPI, import items have a weight of 35% and export items 5%, making a total weight of 40% for traded items, whereas in the WPI they are 27.17% and 22.52% respectively -- a total weight of 49.69% for external items.

---

2. Including Vietnam the rate is 14%.

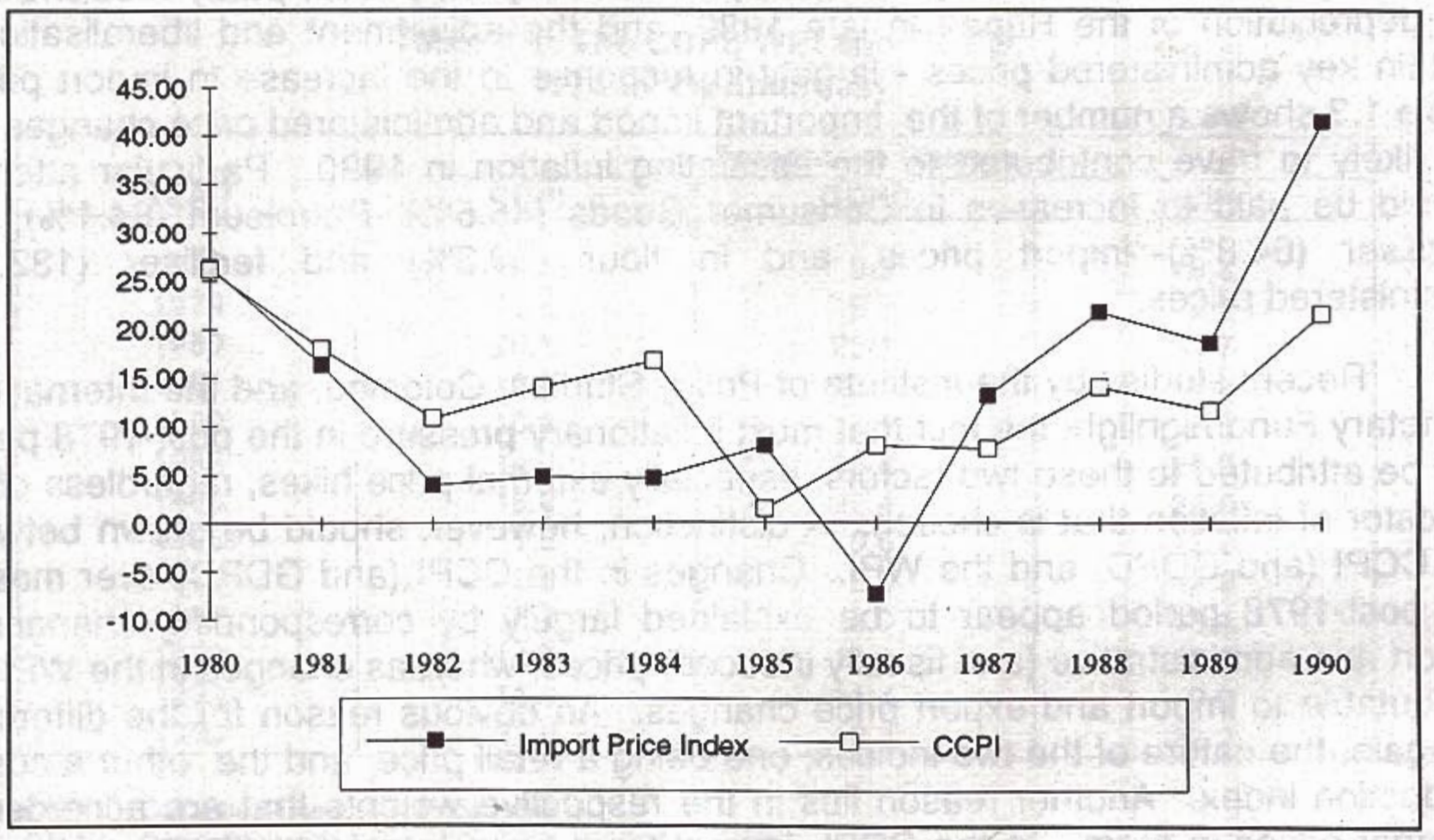
Table 1.3 Import and Administrative Price Inflationary Pressures (percentage change)

Index	1990
Import Price Index	41.4
Consumer Goods Import Price Index	45.5
Intermediate Goods Import Price Index	24.5
Petroleum	64.1
Fertiliser	64.8
Investment Goods Import Price Index	31.8
CCPI Food Index	23.3
Administered Prices (Dec. figures)	
Flour Rs./Kg.	60.3
Fertiliser Rs/MT	132.9

Source: Central Bank of Sri Lanka

Plotting the rate of change of the CCPI against that of the general import price index suggests that there is a close relation between the two, especially in recent years (see Figure 1.2). This relation appears to break down in the middle years, 1983-86, but this can be explained. First, there was an inordinately large movement in export prices

Figure 1.2: CCPI vs Import Price Index 1980-90[3] (percentage changes)

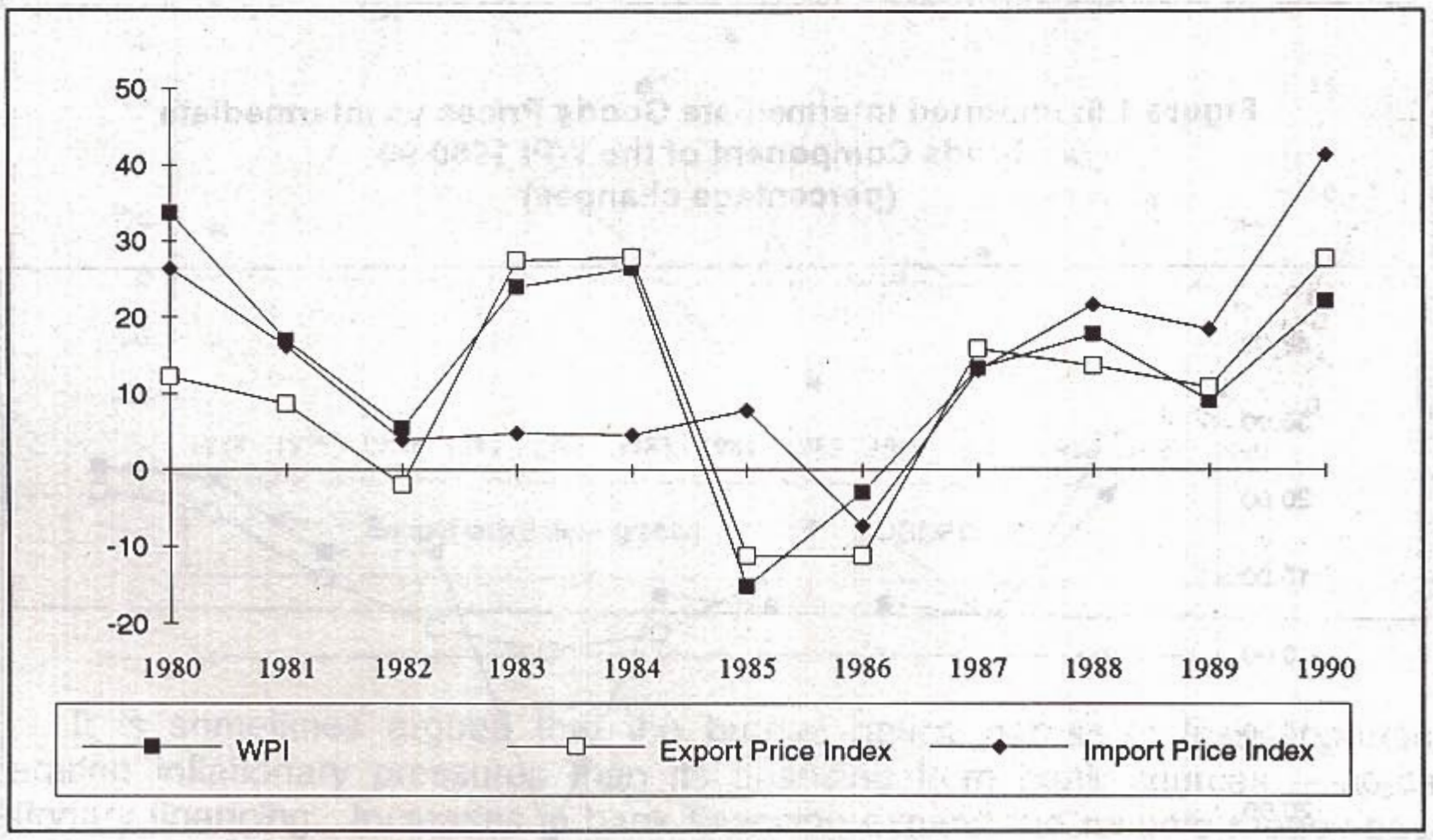


3. The starting date for the period is taken to be 1980 for pragmatic reasons; the new more reliable Central Bank external price series only begins in 1979.

at that time. Second, there were changes in certain administratively determined prices. And, third, there were domestic food supply problems arising from the drought in 1986 which were not off-set by corresponding increases in imports.

As we have noted, most changes in the WPI can be explained by fluctuations in the import and export price indices. This is evident from a plot of the two over the 1980-90 period (see Figure 1.3). Over the years 1983-86 export price changes would appear to explain most of the movement of the WPI. Decomposing the WPI into its consumer, intermediate and investment goods components sheds further light on this relation. Movement of the consumption goods component of the WPI over the 1980-90 period would seem to a large extent accounted for by changes in the import price index (see Figure 1.4). Similarly, the movement in the intermediate component of the WPI closely corresponds to changes in the intermediate component of the import price index over this period (see Figure 1.5). There is no discernible impact of changes in the investment component of the import price index on the investment component of the WPI, though the significance of this for the preceding hypothesis is limited. The weight of this component in the overall WPI is small - 4.18%.[4]

Figure 1.3: Wholesale Price, Import Price and Export Price Indices, 1980-90



4 One obvious reason for the poor relation is that many of the imported items classified under investment goods are for non-productive purposes, e.g. military use.

Figure 1.4: Consumer Goods Component of WPI and Export Price Index 1980-90 (percentage changes)

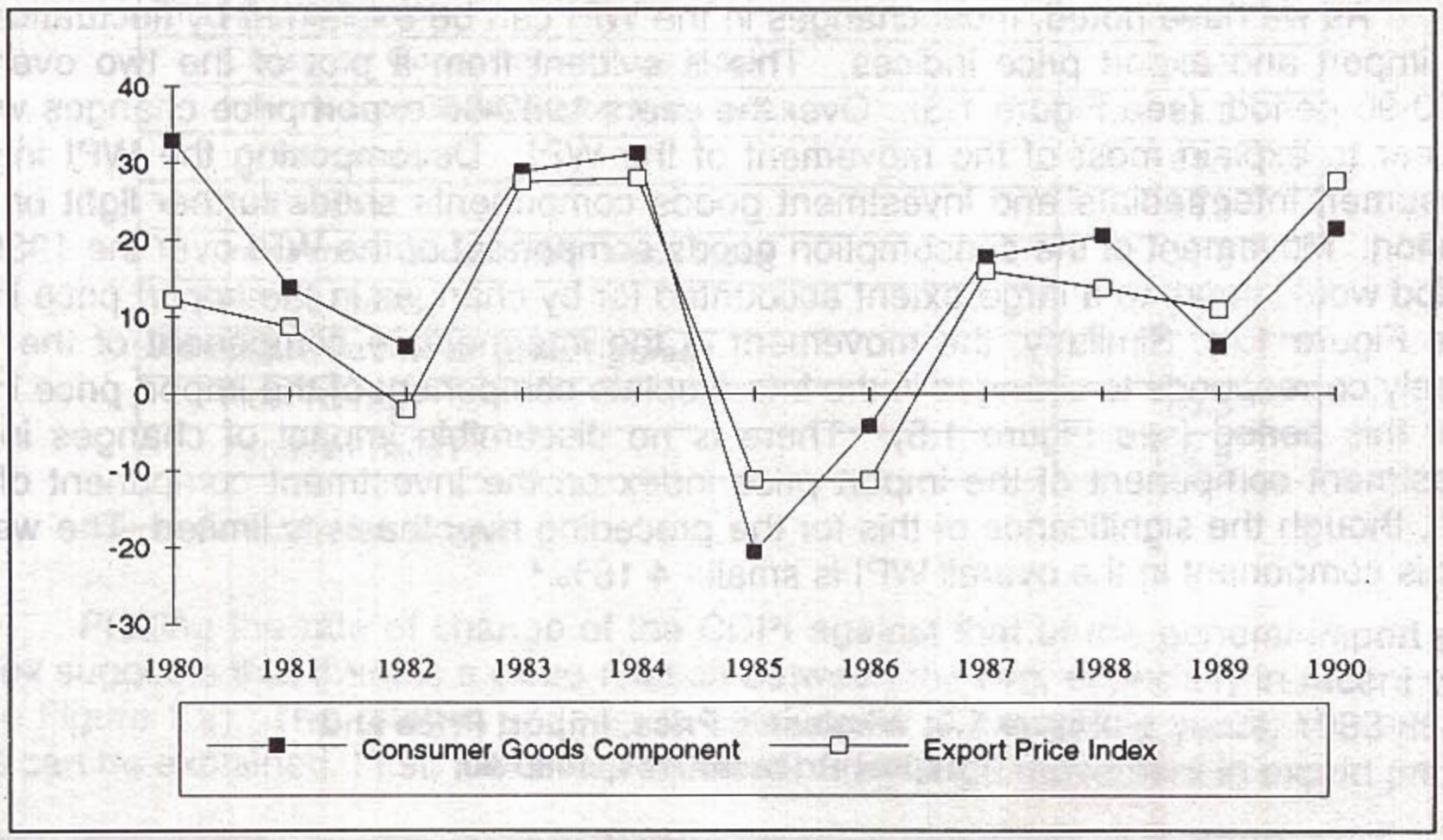
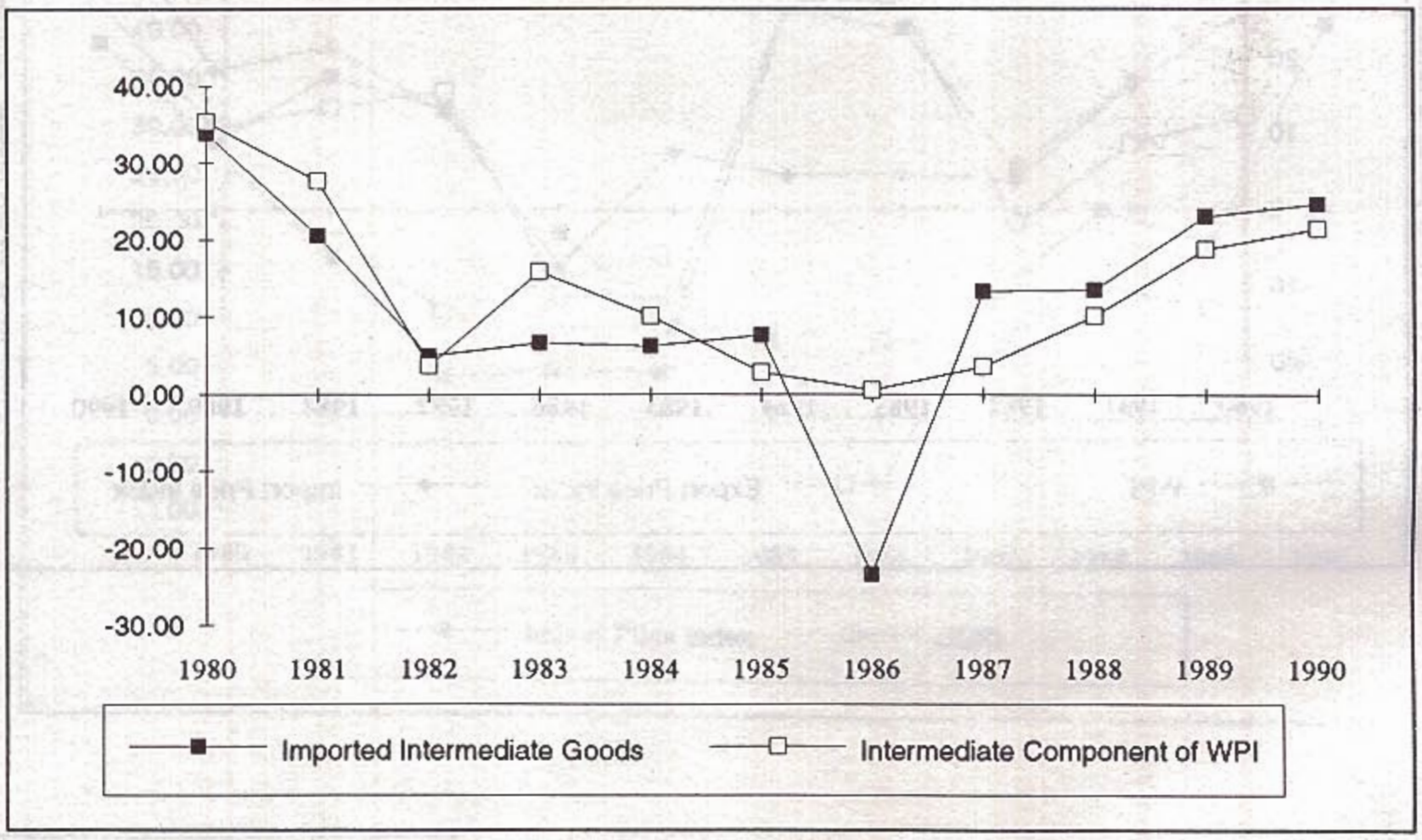


Figure 1.5: Imported Intermediate Goods Prices vs Intermediate Goods Component of the WPI 1980-90 (percentage changes)

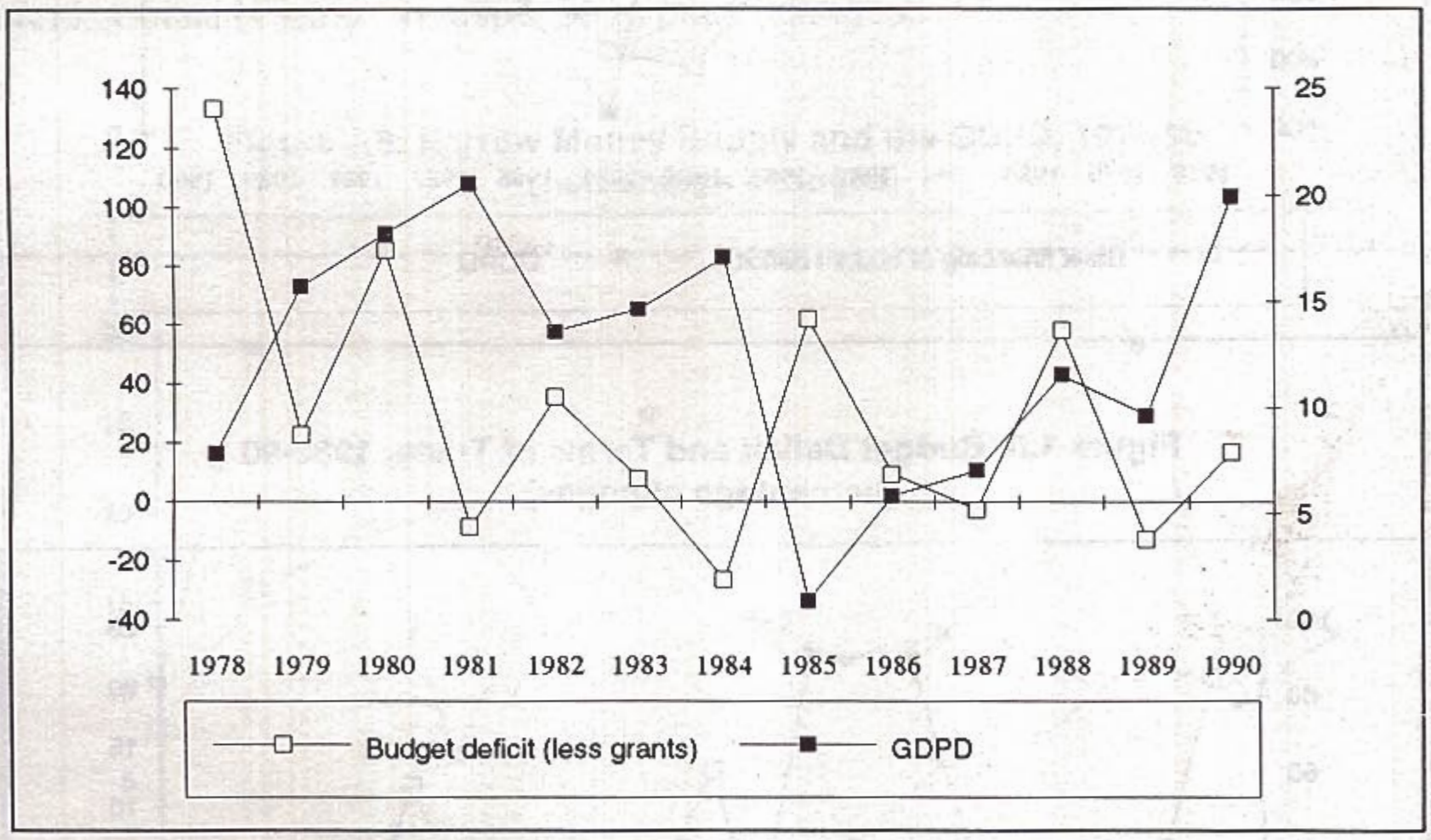


2.2 DEMAND-PULL FACTORS

Orthodox economic theory points to two demand factors that could be of importance in explaining inflation and inflationary processes in Sri Lanka, namely, the budget deficit and credit expansion. The data suggest that both could have had an influence, not as primary sources of inflationary pressure, but as **propagators** of these pressures.

Plotting changes in the GDPD[5] against changes in the budget deficit suggests that the latter could have had an impact on inflation, at least in the period after 1987 -- that is, in the period after the adoption of the structural adjustment programme by Sri Lanka (see Figure 1.6). For most of the remaining period the relation between the two variables appears, if anything, perverse. Lagging changes in the GDPD does not help to resolve this.

Figure 1.6: Budget Deficit and GDPD 1978-90 (percentage changes)



It is sometimes argued that the budget deficit *per se* is less important in generating inflationary pressures than its financing from bank sources -- so-called inflationary financing. Increases in bank financing expand the reserve money base of the system which in turn induces a corresponding expansion of money supply hence giving rise to inflation. Figure 1.7 is a plot of changes in the GDPD against changes in inflationary financing of the deficit. Although the relationship breaks down over the

---

5. The GDPD is used here because it has the widest coverage of the three indicators, and therefore should be the best reflector of demand pressures which are economy-wide.

1980-85 period, inflationary financing, like the budget deficit, does exert some influence on the GDPD variable. This is hardly surprising given that there is a clear relation between the budget deficit and bank financing of the deficit.

Figure 1.7: Bank Financing of the Budget Deficit and GDPD 1978-90 (percentage changes)

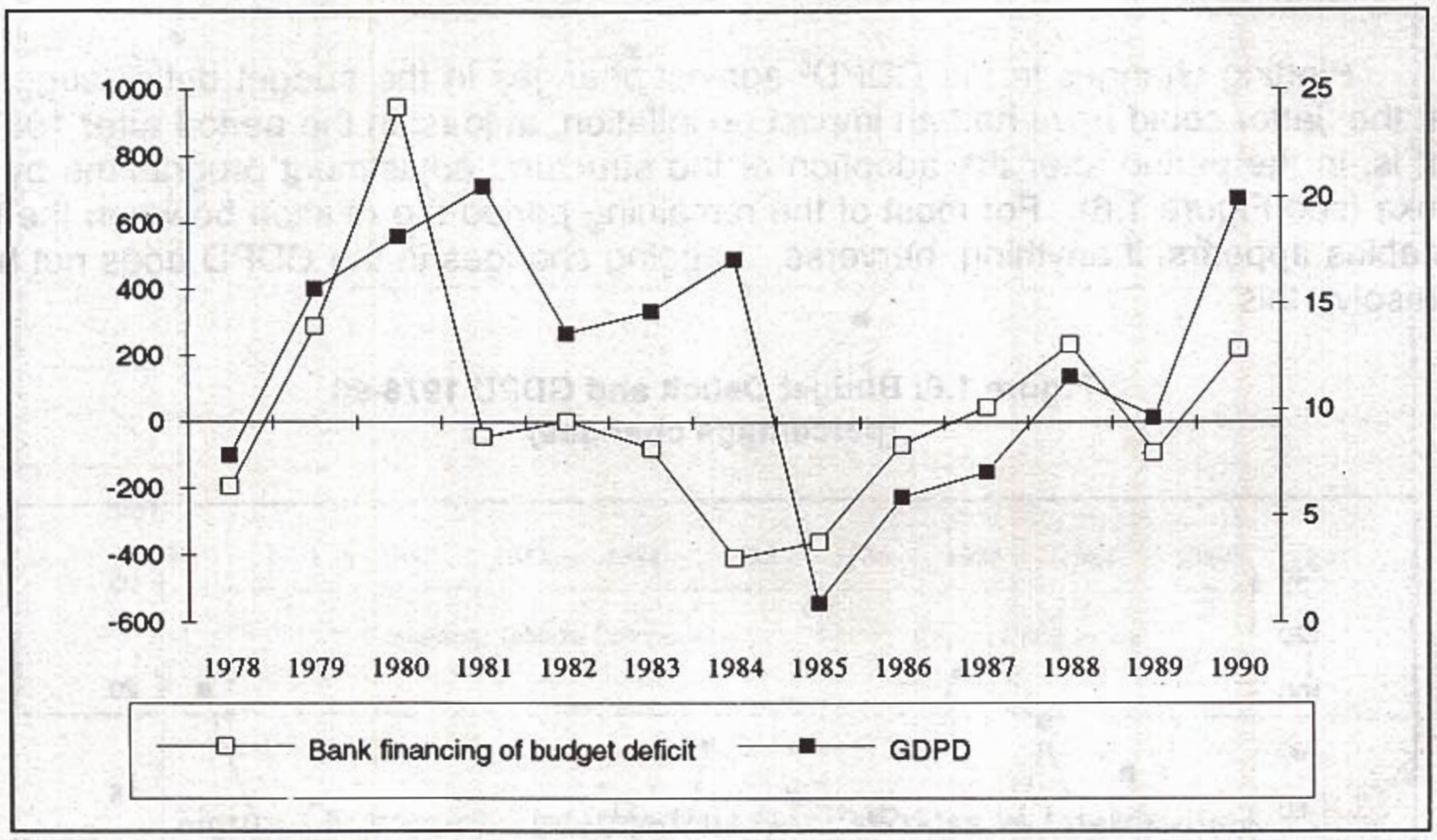
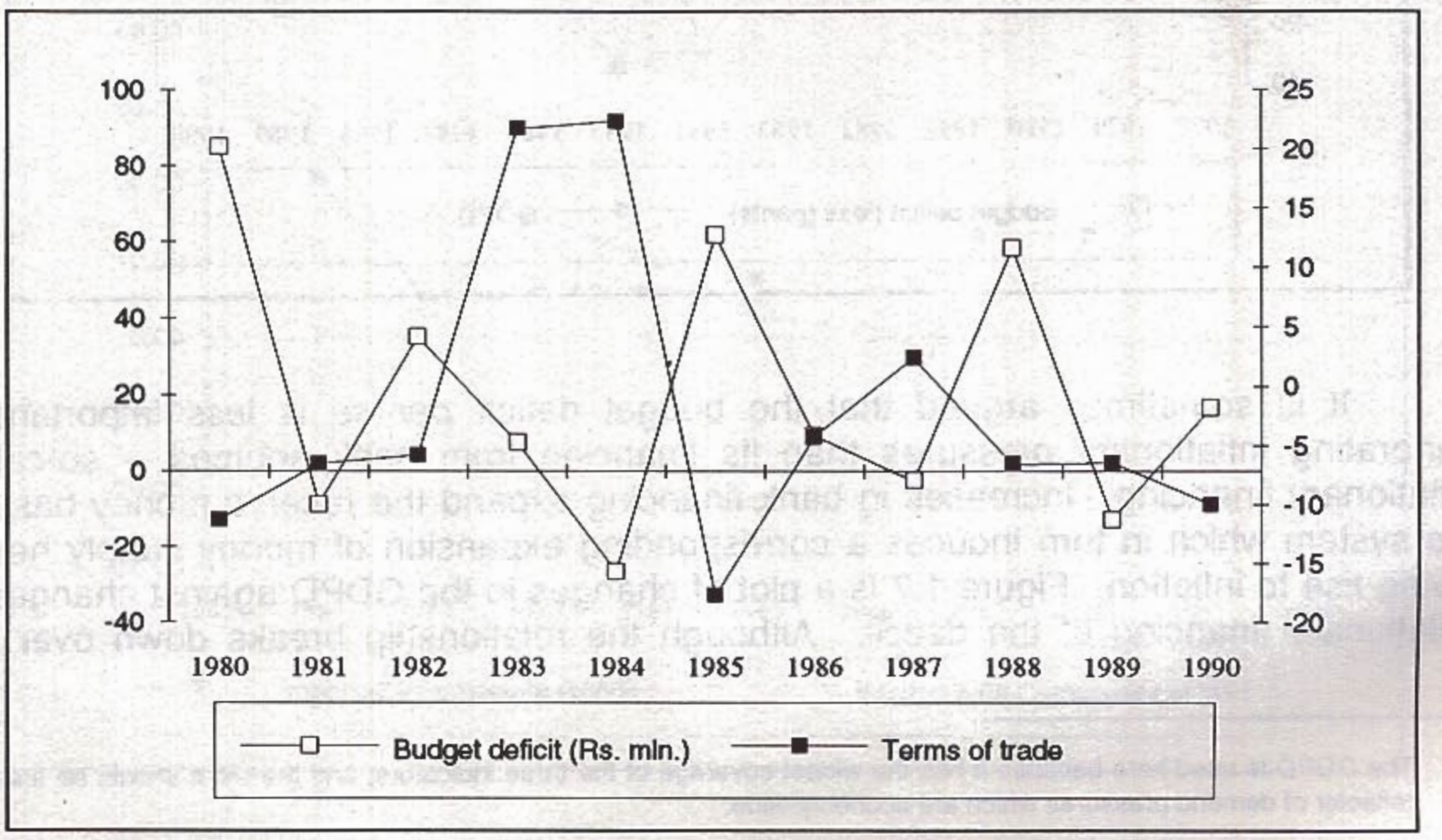


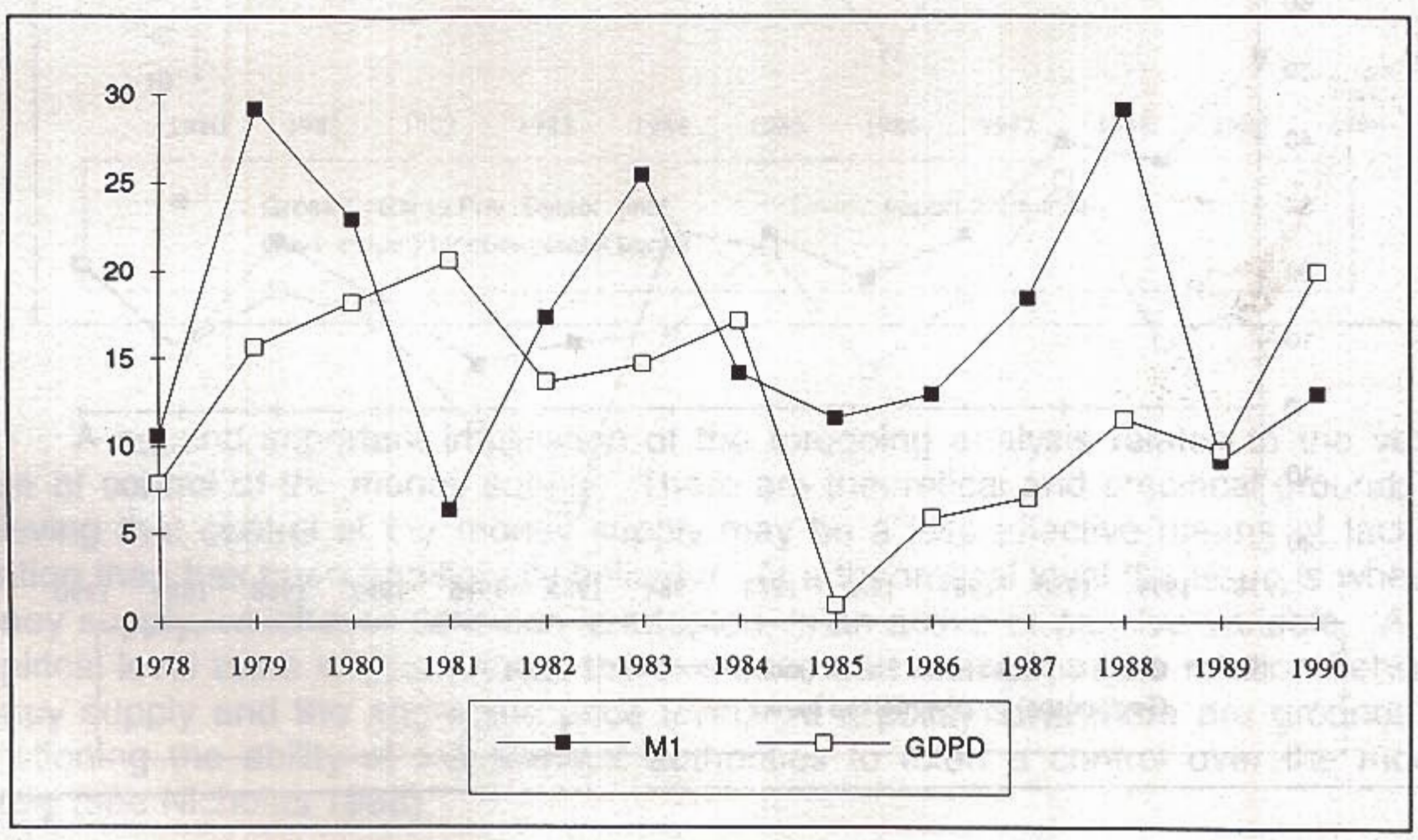
Figure 1.8: Budget Deficit and Terms of Trade, 1980-90 (percentage changes)



The important point to be made here, however, is that changes in the budget deficit (and bank financing of the deficit) appear to be inversely related to those in the terms of trade (see Figure 1.8). This would imply that insofar as changes in the budget deficit and bank financing of the deficit can be argued to have a demand impact on the domestic price level, their real influence is as propagators, and not as primary sources of inflation.

Money supply having been mentioned in discussing the role of the deficit, some comment is warranted on its significance (or the lack of it) in explaining the rate of inflation. To begin with, if money supply, or more correctly money stock, is accepted as having an influence on expenditure decisions, then in the Sri Lankan context it is only money held as cash or in demand deposits (and at most CDs) which can be said to do so.[6] In other words, the relevant definition of money stock is M1. Plotting M1 against the GDPD suggests that it is only in the post-1985 period that there is a correspondence between the two (see Figure 1.8). However, since this correlation is contemporaneous, it is not intuitively clear which is the cause and which the effect. In fact, there is every reason to suppose that individuals generally adjust their cash and demand deposit holdings in response to price changes.

Figure 1.8: Narrow Money Supply and the GDPD, 1978-90 (percentage changes)



Regarding the second demand factor, since most credit to the private sector is for business purposes, one would expect to see a strong relation between credit and

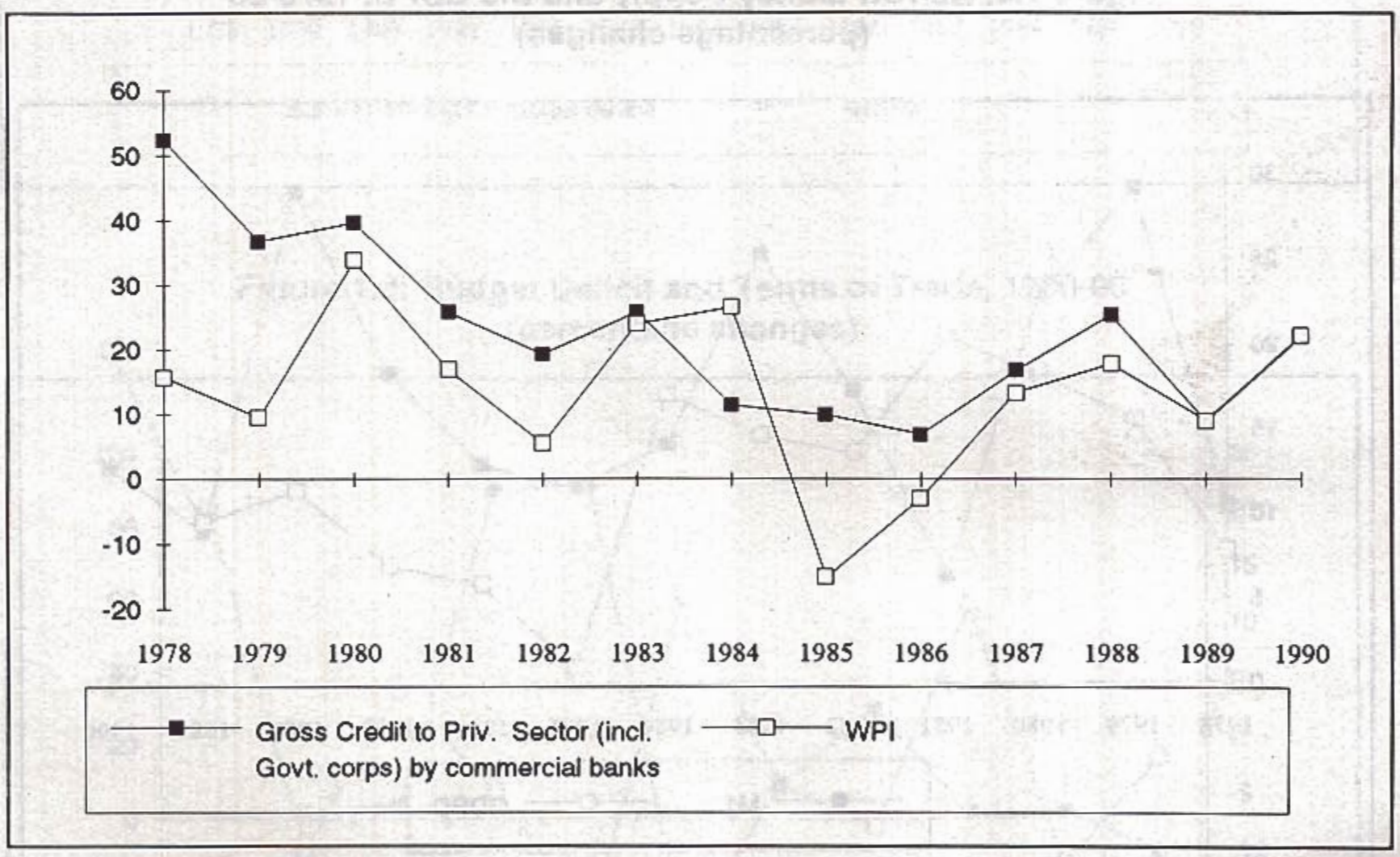
---

6. Money held in savings and fixed deposits is typically not held by individuals with expenditure in mind. This is especially the case in countries like Sri Lanka where most financial savings are held in the form of bank deposits.

underlying costs of production and reproduction. Plotting changes in gross credit to the private sector against changes in the WPI confirms this to have been the case (see Figure 1.10). The relation is actually quite close. In 1990 the rate of growth of the two variables was almost the same. Figure 1.10 also shows a close correspondence between credit to the private sector and the import price index. Thus, it can justifiably be concluded that credit, like the budget deficit, has a propagating role. From the closeness of the relation between credit to the private sector and the import price index, especially in recent years, it would appear that this propagating role is particularly strong. Had credit, particularly credit to the private sector, not been so accommodating, the negative impact of external shocks may well have translated into considerably lower rates of growth.

It is important to note in the context of this discussion that demand factors have had no more than a propagating influence in the post-1978 period because the economy operated during most of this period without significant balance of payment and savings constraints.

Figure 1.9: Gross Credit to the Private Sector and the WPI, 1978-90 (percentage changes)

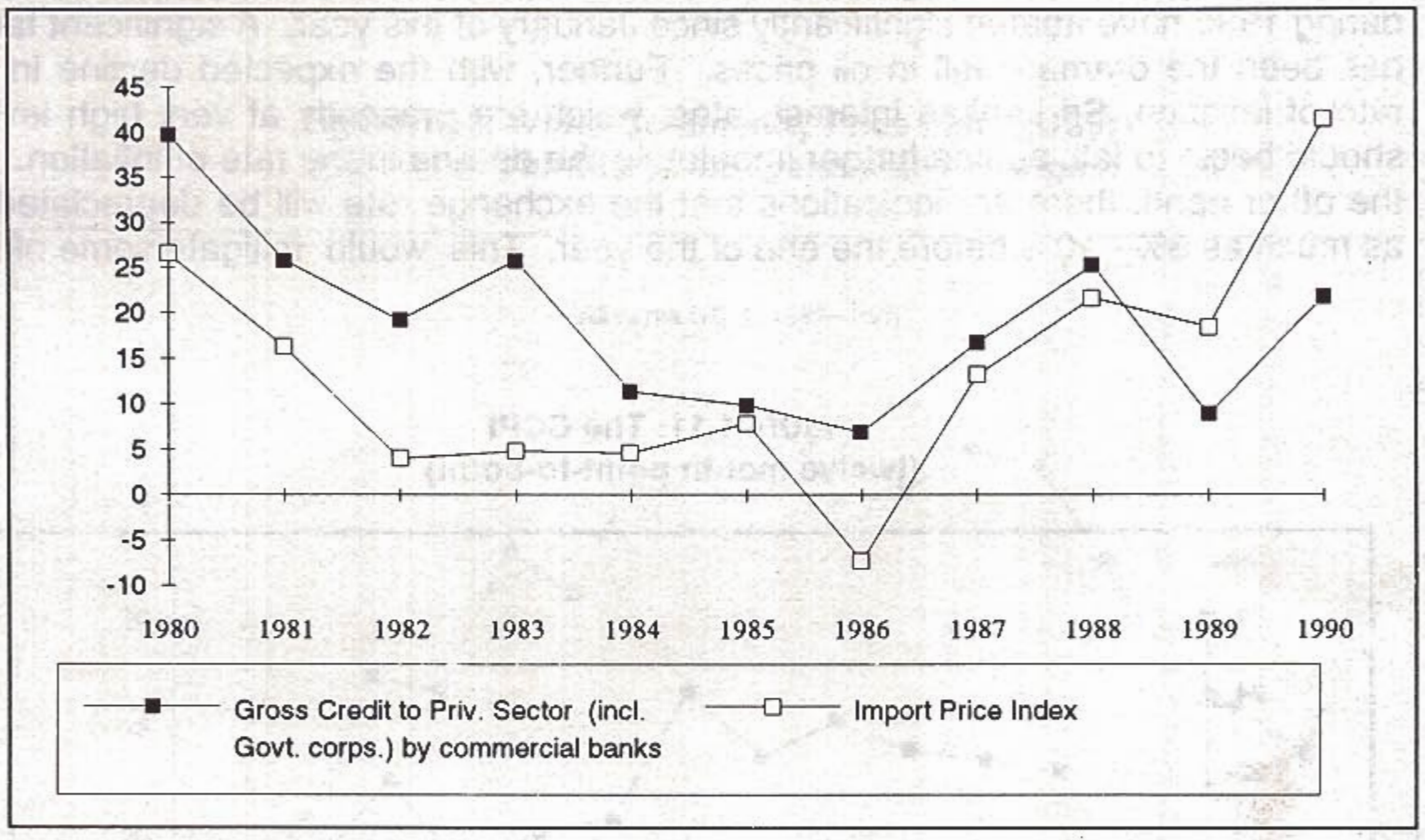


3. IMPLICATIONS FOR POLICY

The implications of all this for policy are, first, that control of the budget deficit and credit do not in themselves guarantee a low rate of inflation, though they may have a dampening impact on inflation. Since current inflationary pressures are primarily cost-

induced, it can justifiably be argued that the recent attempt to squeeze credit through increases in the rate of interest has tended to aggravate these pressures. At the same time, this was detrimental to investment and output - particularly private sector investment and output. A corollary of this is that there may be some justification for tolerating expansions in the budget deficit (and bank financing of the deficit) and credit over the short-run where it can be shown that these expansions help to accommodate external shocks. The issue here is one of **flexible targeting**.

Figure 1.10: Import Price Index and Gross Credit to the Private Sector 1978-90 (percentage changes)



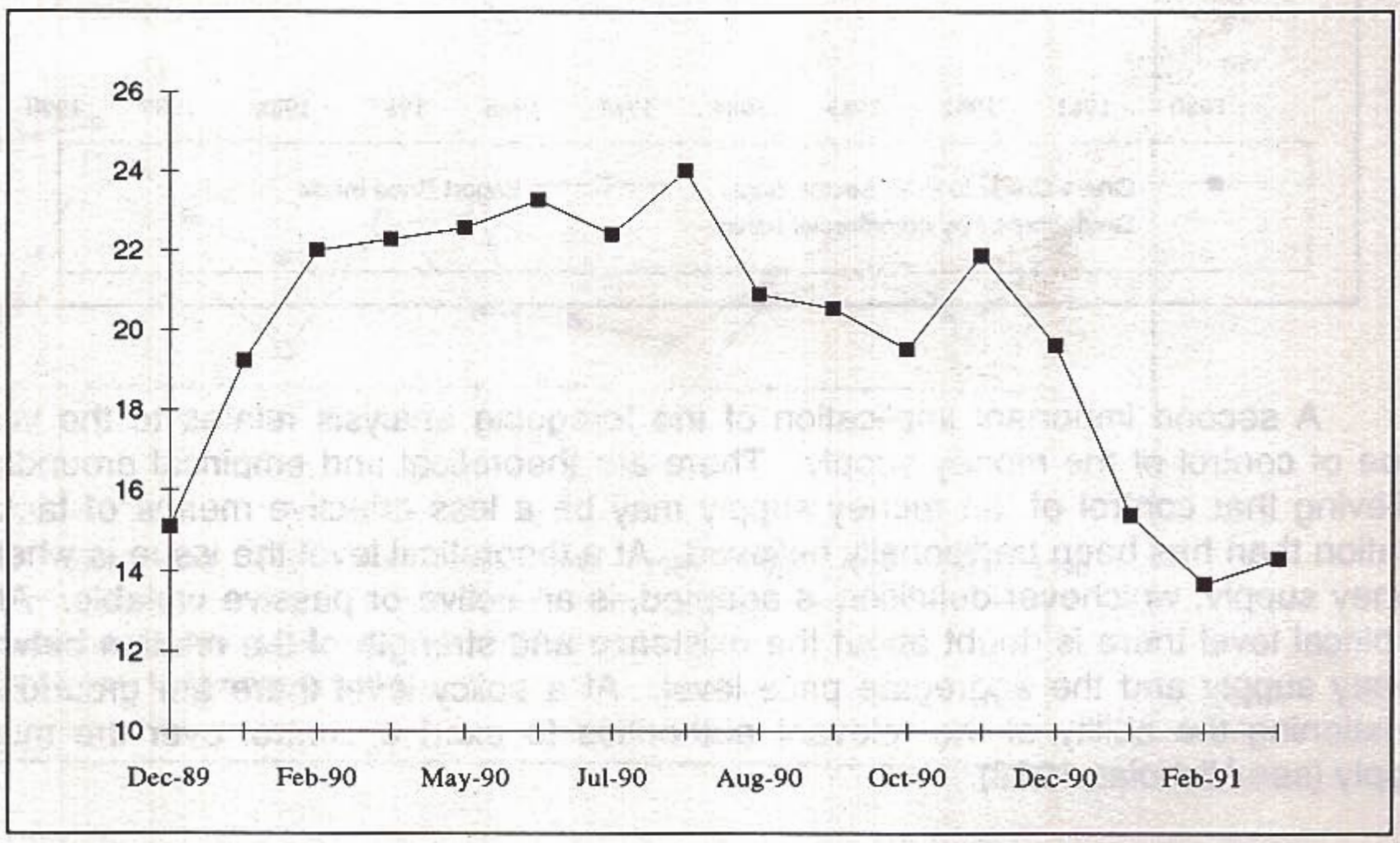
A second important implication of the foregoing analysis relates to the vexed issue of control of the money supply. There are theoretical and empirical grounds for believing that control of the money supply may be a less effective means of tackling inflation than has been traditionally believed. At a theoretical level the issue is whether money supply, whichever definition is adopted, is an active or passive variable. At an empirical level there is doubt about the existence and strength of the relation between money supply and the aggregate price level. At a policy level there are grounds for questioning the ability of the relevant authorities to exert a control over the money supply (see Nicholas 1988).

A third implication is that cognisance needs to be taken of the impact of currency depreciation on inflation and policy variables such as the budget deficit and credit expansion. The analysis should not be construed as an argument against parity exchange rate adjustments, but rather as highlighting the importance of the timing and sequencing of such adjustments. In a situation of rapid externally-induced inflation, for example, the most appropriate course of action with respect to corrective currency adjustments may well be to lag or stagger such adjustments.

4. INFLATIONARY OUTLOOK

The current indications are that the inflation outturn for 1991 will be considerably lower than for 1990. Twelve month point-to-point rates of increase in the CCPI (see Figure 1.11) suggest that inflationary pressures are abating. However, the final figure for the year will depend heavily on the future direction of import prices and the price liberalisation measures that are in store. As regards the former, it would appear that, on the one hand, the global recession is having the expected dampening effect on import prices. Figure 1.12 is a plot of twelve-month point-to-point changes in the US$ index of world commodity prices from December 1989 to May 1991. It suggests that world inflationary pressures, which mounted during 1990 have abated significantly since January of this year. A significant factor has been the dramatic fall in oil prices. Further, with the expected decline in the rate of inflation, Sri Lankan interest rates, which are presently at very high levels, should begin to fall, adding further impetus to the decline in the rate of inflation. On the other hand, there are indications that the exchange rate will be depreciated by as much as 8% - 10% before the end of the year. This would mitigate some of the

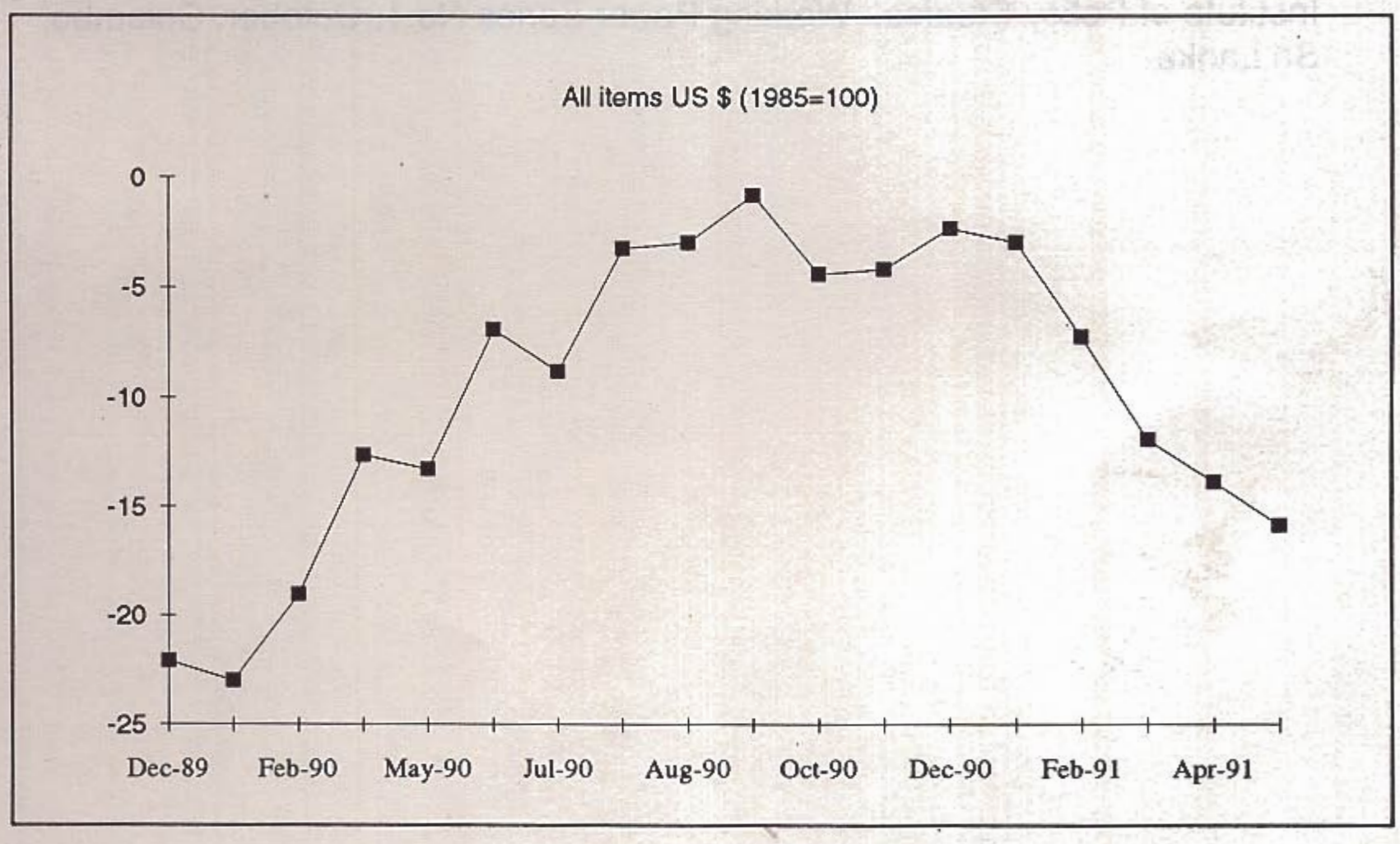
Figure 1.11: The CCPI
(twelve month point-to-point)



fall in world market prices. Price reforms are also likely to continue, although with perhaps a much diminished impact. Lastly, current expectations regarding fiscal outturn suggest that the budget deficit will greatly exceed target levels, mainly as a result of unforeseen security-related expenditures. The target rate for the budget deficit in 1991 is 9.5% of GDP. The expected outturn is around 13% of GDP - a 35% overshoot. If this is so it will add considerably to underlying inflationary pressures, with the budget deficit possibly becoming a primary source of the latter.

Taking these factors into consideration our year-end forecast of inflation is in the range of 10%-12%.

Figure 1.12: World Commodity Price Index (US$) - (12 month point-to-point - percentage changes)



REFERENCES

Central Bank of Sri Lanka (1990), *"Annual Report 1990"* Colombo, Sri Lanka.

Nicholas, H.V.B. (1990), *"Inflation in Sri Lanka 1971-87 : A Preliminary Study"*, Institute of Policy Studies, Macro-Economic Series No.3, Colombo, Sri Lanka.

Nicholas H., P. Samararatne, & R.A. Yatawara (1990) *"Sri Lanka's Balance of Payments : An Exploratory Study"*, Institute of Policy Studies, Working Paper, November, Colombo, Sri Lanka.

Nicholas H., & R.A. Yatawara (1990), *"The Sri Lankan Balance of Payments 1990"*, Institute of Policy Studies, Working Paper Series No.1, October, Colombo, Sri Lanka.